

October 30, 2020

**VIA FIRST CLASS MAIL & ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: The Narragansett Electric Company d/b/a National Grid  
Tariff Advice Filing to Amend R.I.P.U.C. NG-Gas No. 101  
Distribution Adjustment Charge Tariff Advice to Amend AGT Program Provision  
Docket No. 5079**

Dear Ms. Massaro:

Pursuant to Rule 810-RICR-00-00-1.10(C) of the Rhode Island Public Utilities Commission's ("PUC") Rules of Practice and Procedure, I have enclosed National Grid's<sup>1</sup> tariff advice seeking approval of revisions to the Company's gas tariff, entitled Distribution Adjustment Clause, R.I.P.U.C. NG-GAS No. 101, Schedule A, Twelfth Revision, effective December 15, 2020. This tariff would supersede the Company's Distribution Adjustment Clause, R.I.P.U.C. NG-GAS No. 101, Schedule A, Eleventh Revision.

In this filing, the Company seeks to amend Section 3.2, Advanced Gas Technology (AGT) Factor, of the Distribution Adjustment Clause of its gas tariff. The amendment would allow the Company to recover prudently incurred costs of studies approved by the PUC and the Division of Public Utilities and Carriers on the decarbonization of natural gas to be recovered through the AGT Factor.

In support of the proposed revisions to the Company's DAC Provision of the Company's gas tariff, enclosed is the prefiled direct testimony of Company witness Lee Gresham, who describes why the Company is requesting an expansion of the AGT Program Provision and why

---

<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

# Robinson+Cole

Luly Massaro, Commission Clerk  
Tariff Advice - Distribution Adjustment Charge  
October 30, 2020  
Page 2 of 2

such expansion is appropriate. A clean copy of the amended tariff is attached to Mr. Gresham's testimony marked as Schedule LG-1. A redline of the proposed gas tariff identifying the proposed revisions is contained in Schedule LG-2.

Thank you for your attention to this filing. If you have any questions concerning this matter, please contact me at 401-709-3337.

Very truly yours,



Leticia C. Pimentel

Enclosure

**THE NARRAGANSETT ELECTRIC COMPANY  
d/b/a NATIONAL GRID  
R.I.P.U.C. DOCKET NO. 5079  
DISTRIBUTION ADJUSTMENT CHARGE  
TARIFF ADVICE TO AMEND AGT PROGRAM PROVISION  
WITNESS: LEE GRESHAM  
OCTOBER 30, 2020**

---

**PRE-FILED DIRECT TESTIMONY**

**OF**

**LEE GRESHAM, JD, PhD**

**Table of Contents**

I. Introduction and Qualifications of Lee Gresham .....1

II. Purpose of Testimony.....2

III. Background.....3

IV. Expansion of AGT Program .....5

V. Conclusion.....10

1 **I. Introduction and Qualifications of Lee Gresham**

2 **Q. Please state your name and business address.**

3 A. My name is Lee Gresham. My business address is 40 Sylvan Road, Waltham,  
4 Massachusetts 02451.

6 **Q. Where are you employed and what are your responsibilities in your position?**

7 A. I am employed by National Grid USA Service Company, Inc. as a Lead Analyst for the  
8 Gas Utility of the Future team within the Regulatory and Customer Strategy group of the  
9 Strategy and Regulation department. I am the Rhode Island jurisdictional lead for heat  
10 decarbonization matters for the gas division of The Narragansett Electric Company d/b/a  
11 National Grid (the “Company”), including those related to the Company’s capital  
12 investment strategy. In my role, I work closely with the Rhode Island Jurisdictional  
13 President and jurisdictional staff on all local issues related to the Company’s heat  
14 decarbonization efforts. My responsibilities also include working with the Company’s  
15 regulators on issues related to decarbonizing the gas system, developing strategies to  
16 support Company objectives regarding decarbonization-related investments in the gas  
17 system, and providing testimony regarding capital investments that enable the Company  
18 to decarbonize its gas distribution network.

19

20 **Q. Please provide your educational background.**

1 A. I graduated from the College of the Holy Cross with a Bachelor of Arts degree in  
2 Psychology and concentration in Pre-Medicine in 1999. In 2007, I graduated from  
3 Vermont Law School with a Juris Doctorate degree. And in 2010, I received a Doctor of  
4 Philosophy degree in Engineering and Public Policy from Carnegie Mellon University.

5  
6 **Q. Please provide your professional background.**

7 A. From 2010 to 2011, I was a Post-Doctoral Fellow with the Carbon Capture and  
8 Sequestration Regulatory Institute. I worked as a Senior Consultant at SAIC's Energy,  
9 Environment, and Infrastructure division from 2011 to 2012. From 2012 to 2018, I held  
10 roles of increasing responsibility as an Associate with The Brattle Group in the firm's  
11 utility practice.

12  
13 **Q. Have you previously testified before the Public Utilities Commission ("PUC")?**

14 A. Yes. I submitted pre-filed testimony in the Company's FY 2021 Gas Infrastructure,  
15 Safety, and Reliability ("ISR") Plan presenting the Company's Heat Decarbonization  
16 Assessment in Docket No. 4996.

17  
18 **II. Purpose of Testimony**

19 **Q. What is the purpose of your testimony?**

20 A. The purpose of my testimony is to support the proposed revisions to the Company's  
21 Distribution Adjustment Clause ("DAC") Provision of the Company's gas tariff by

1 describing why the Company is requesting an expansion of the Advanced Gas  
2 Technology (“AGT”) Program and why such expansion is appropriate in light of Rhode  
3 Island’s Heating Sector Transformation Initiative.

4  
5 **Q. Are you sponsoring any schedules with your testimony?**

6 A. Yes. I am sponsoring the following schedules with my testimony:

- 7 • Schedule LG-1 Proposed DAC Provision – Clean
- 8 • Schedule LG-2 Proposed DAC Provision – Marked to Show Changes

9  
10 **III. Background**

11 **Q. Please provide an overview of Rhode Island’s Heating Sector Transformation**  
12 **Initiative.**

13 A. Governor Raimondo launched the Heating Sector Transformation Initiative in 2019,  
14 which directed the Division of Public Utilities and Carriers (“Division”) and the Office  
15 of Energy Resources (“OER”) to lead a “Heating Sector Transformation [(“HST”)] with  
16 the goal of reducing emissions from the heating sector while ensuring Rhode Islanders  
17 have access to safe, reliable, and affordable heating.” In response to the Governor’s  
18 order, the Division and OER led an effort, which culminated in a report in April 2020  
19 that recommended pathways to decarbonization.

20  
21 **Q. What did the Division and OER-led report conclude?**

1 A. The HST report concluded there was “no clear winner” to heating sector  
2 decarbonization and promoted “enacting a set of technology-neutral measures that will  
3 reduce the carbon intensity of all energy sources used for heating” as well as  
4 “[c]omplementary fuel-neutral policies that improve building efficiency.” The HST  
5 report also recommended that “policies should support both the learning and informing  
6 stages, to begin to address the uncertainties, collect information that will be necessary  
7 for the transformation, and ensure a widespread understanding of the solutions and their  
8 implications.” The HST report also suggested that “[r]egulatory changes can enable the  
9 transformation, addressing barriers and facilitating progress on any or all of the  
10 pathways,” while “policies that create structures to identify and capitalize on natural  
11 investment opportunities will also enable the transformation.”

12

13 **Q. What pathways can deliver a decarbonized energy system for Rhode Island?**

14 A. Multiple long-term pathways can deliver a deeply decarbonized energy system for  
15 Rhode Island. The Company seeks to expand the use of AGT Program funding to  
16 include heat decarbonization studies based on the growing body of evidence in  
17 decarbonization pathways analyses, which show that achieving 2050 decarbonization  
18 targets is more cost-effective and resilient through tighter integration of electric and gas  
19 networks, especially in cold climates. Specifically, these studies conclude that low- and  
20 zero-carbon fuels (i.e., biogas and hydrogen) that replace traditional natural gas in gas  
21 networks can play a meaningful and significant role in decarbonization.

1

2 **IV. Expansion of AGT Program**

3 **Q. What is the current AGT Program?**

4 A. The AGT Program was established in Docket No. 2025 to promote the development of  
5 energy-efficient natural gas technologies that increase utilization of natural gas during  
6 periods of low demand. Increased off-peak usage reduces the unit cost of the gas  
7 delivery system for all customers by generating distribution revenue to support fixed  
8 costs associated with resources needed during peak periods. The AGT Program currently  
9 provides rebates for technologies such as combined heat and power (“CHP”) systems,  
10 natural gas-powered fleet vehicles, chilling systems, electrical generators, process  
11 heating, desiccant dehumidifiers, and residential high efficiency space heating equipment.

12

13 **Q. How does the Company propose to expand the AGT Program?**

14 A. As indicated in the revisions proposed in Schedules LG-1 and LG-2, the Company is  
15 proposing to expand the AGT Program by allowing an AGT factor to also include the  
16 recovery of:

17       actual costs prudently incurred by the Company to conduct or in support  
18       of studies on the decarbonization of natural gas with the goal of reduced  
19       greenhouse gas emissions, the scope, estimated cost, and purpose of which  
20       has been reviewed and supported in writing by the Division, and formally

1 approved by the PUC after a description of the study (including the scope,  
2 estimated cost, and purpose) has been filed by the Company with the PUC.  
3

4 **Q. Why does the Company believe this expansion is appropriate?**

5 A. The Company recognizes and supports Rhode Island’s need to ensure energy reliability  
6 and facilitate the transition towards a low-carbon future. The Company believes that the  
7 best approach for Rhode Island is a technology-neutral approach, and that a balanced  
8 mix of strategic electrification, decarbonized gas, and energy efficiency will play a  
9 material role in achieving these objectives. Decarbonization studies, specifically, will  
10 allow the Company to help identify and provide greater insights into the actions Rhode  
11 Island can take over the next decade to address heating sector reliability and emissions  
12 and which types of actions should be undertaken at pilot versus commercial scale.<sup>1</sup>  
13

14 Expansion of the AGT Program to include decarbonization studies would allow for new  
15 technology design that could decrease (or lower) the carbon emissions from future

---

<sup>1</sup> For instance, geothermal heat pumps are highly efficient and can meet whole-home heating and cooling needs. For delivered fuel customers outside of the natural gas network, geothermal is an opportunity to convert to a cleaner heating system. For those customers for whom electrification is impracticable due to economic and/or technical constraints, the Company sees the opportunity to drive the decarbonization of the gas network through use of renewable natural gas (i.e., biogas) and hydrogen blending. While the Company is not proposing to include geothermal or electrification studies as part of the AGT Program in this filing, the Company offers geothermal heat pumps as an example of a complementary heat decarbonization pathway that may be available and suitable for customers.

1 pipeline gas and continue to aid in the efficient use of the gas infrastructure through  
2 development of advanced gas technologies.

3  
4 **Q. Please describe the anticipated purpose of the heat decarbonization studies that the**  
5 **Company is proposing to include in the AGT Program.**

6 A. Renewable natural gas (“RNG”) and hydrogen present an extraordinary opportunity to  
7 decarbonize the heating sector and leverage existing assets for a more affordable  
8 outcome. Integrating RNG and hydrogen converts the existing gas network into a clean  
9 energy distribution system that delivers low- or zero-carbon fuel to customers without  
10 significantly increasing risks associated with utilization of the gas blend in end-use  
11 appliances, overall public safety, or the durability and integrity of the existing natural  
12 gas distribution network. The Company believes that decarbonizing the gas and electric  
13 networks in parallel can reduce the cost of achieving deep decarbonization goals. RNG  
14 and hydrogen blending<sup>2</sup> will allow customers to reduce their carbon footprint without  
15 having to replace end-use equipment or undertake substantial renovations, thus  
16 minimizing disruption and upfront capital costs for our customers.

17  
18 The Company’s mission is to implement innovative solutions that are appropriate for  
19 each market it serves and that advance the Company towards a collective vision for the

---

<sup>2</sup> Blending up to 20% hydrogen into existing gas networks is currently being piloted in Europe and the United Kingdom.

1 future. The Company will prioritize investments that will be reliable and relevant in  
2 future scenarios, and believes that investment in research, development, and deployment  
3 (“RD&D”) is critical. For instance, to achieve commercial-scale application, emerging  
4 sources and technologies used to produce RNG (e.g., municipal solid waste, food waste)  
5 and hydrogen (via electrolyzers) need to be evaluated for near-, mid-, and long-term  
6 feasibility. This approach is consistent with the HST Report recommendation to support  
7 learning and informing stages of development that allow time to address the  
8 uncertainties and collect all information necessary for a sector-wide transformation.  
9 The insight gained from these kinds of studies can be used to identify and evaluate  
10 opportunities for programs and projects that provide or integrate low-carbon energy  
11 supply, such as, but not limited to:

- 12 • Specific locations for RNG interconnections and potential partners to develop RNG  
13 facilities;
- 14 • Locations for future use as a closed-loop hydrogen injection site(s). The Company  
15 would rely on learnings to determine whether, and to what degree, hydrogen can  
16 safely be blended into the Company’s system in subsequent years; and
- 17 • Locations on the Company’s gas network for use as a future hydrogen injection  
18 site(s). Engineering work would be required to ascertain an appropriate and  
19 beneficial location to build a hydrogen injection site in the state. Such work would  
20 provide the Company with a more complete understanding of the application of  
21 hydrogen technology in our system. The enhancement requested to the AGT

1           program could be utilized to develop a building site plan for a future electrolyzer  
2           pilot, potentially aimed at meeting supply constraints in a specific area, and which  
3           could blend 2-20% hydrogen into the system.

4   **Q.   How does the Company intend to reduce the burdens related to development?**

5   A.   Where possible, the Company will partner with organizations (e.g., incubators, industry,  
6       or Rhode Island academic institutions) that are exploring the same topics to reduce the  
7       burdens related to development. Where appropriate, the Company will adopt a phased  
8       approach to new solutions, utilizing robust engineering and feasibility studies to  
9       understand the application and using the information gained to inform any next steps  
10      and scale-out, or to forego any additional efforts on solutions that do not appear viable.  
11     The Company will adopt a technology/solution agnostic approach and will, instead, be  
12     guided by evaluating its proposals against various principles.

13  
14     Finally, the Company will seek to develop solutions in collaboration with the market  
15     and stakeholders. Rapid change may require that the Company moves into new markets  
16     or deliver new solutions to customers. This may require the Company to propose  
17     disruptive changes to our existing business model, but we will ensure that we engage  
18     with stakeholders during the development process to ensure any proposal supports  
19     accelerated adoption of solutions consistent with our vision for the future of heating.

20

1 **Q. Is the Company proposing a study on the decarbonization of natural gas as part of**  
2 **this filing?**

3 A. No, not at this time. The Company is in the process of developing a Front End  
4 Engineering and Design (“FEED”) study that will provide a 10% to 25% complete design  
5 suitable for a competitive bidding process or Request for Proposals from experienced  
6 engineering consultants. The Company intends to consult with the Rhode Island Division  
7 of Public Utilities and Carriers regarding the proposed scope of the FEED study,  
8 following which it will present the FEED study to the PUC for approval, subject to the  
9 PUC’s approval of the Company’s proposed tariff changes discussed herein.

10

11 **V. Conclusion**

12 **Q. Does this conclude your testimony?**

13 A. Yes.

**THE NARRAGANSETT ELECTRIC COMPANY  
d/b/a NATIONAL GRID  
RIPUC DOCKET NO. 5079  
DISTRIBUTION ADJUSTMENT CHARGE FILING  
TARIFF ADVICE TO AMEND AGT PROGRAM  
SCHEDULE LG-1**

---

Proposed DAC Provision  
Clean

## **DISTRIBUTION ADJUSTMENT CLAUSE**

### **1.0 GENERAL**

#### **1.1 Purpose:**

The purpose of the Distribution Adjustment Clause (“DAC”) is to establish procedures that allow the Company, subject to the jurisdiction of the PUC, to annually adjust its rates for firm sales and transportation in order to recover, credit, or reconcile the following:

- (1) the system pressure costs;
- (2) the difference between the approved AGT factor revenue collections and actual AGT factor revenue collections;
- (3) the costs of the Infrastructure, Safety, and Reliability Plan;
- (4) the amortization of the most recent ten years of Environmental Response costs;
- (5) Pension costs and Post-retirement Benefits Other than Pensions expenses;
- (6) to credit any Service Quality Performance penalties;
- (7) any over or under collections of revenue under the Revenue Decoupling mechanism;
- (8) the previous year DAC items;
- (9) any Earnings Sharing;
- (10) any Residential Assistance costs; and
- (11) the impact of the Tax Cuts and Jobs Act.

Any costs recovered through the application of the Distribution Adjustment Charge shall be identified and explained fully in the annual Distribution Adjustment Charge filing.

#### **1.2 Applicability:**

The Distribution Adjustment Charge will be applied to sales and transportation volumes under each of the Company’s firm rate schedules.

The Company will make annual DAC filings and its annual Reconciliation filings based on actual costs and volumes available at the time of filing as well as forecasts of applicable costs and volumes through October of that year. With the exception of the Infrastructure, Safety and Reliability component described in Item 3.3.2, the Distribution Adjustment Charge shall become effective with consumption as of November 1 each year.

Unless otherwise notified by the PUC, the Company shall submit the Distribution Adjustment Charge filings no later than 90 days before they are scheduled to take

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

effect, provided however that the Revenue Decoupling Adjustment component of the Distribution Adjustment Charge filing will be made July 1 annually. The Annual Reconciliation filing will be made by August 1 of each year.

**2.0 DISTRIBUTION ADJUSTMENT CHARGE:**

The Distribution Adjustment Charge will consist of an annual System Pressure factor, an Advanced Gas Technology factor, an Infrastructure, Safety, and Reliability factor, an Environmental Response Cost factor, a Pension Adjustment Mechanism factor, a Service Quality Performance factor, a Revenue Decoupling Adjustment factor, and a Reconciliation of deferred account balance factor, an Earnings Sharing Mechanism factor, a Low Income Discount Recovery Factor, a Tax Credit Factor and an Arrearage Management Adjustment Factor. The Distribution Adjustment Charge is calculated as follows:

$$DAC = SP + AGT + ISR + ERCF + PAF + SQP + RDA + AMAF + R + ESM + LIDRF + TCF$$

**Where:**

DAC	Distribution Adjustment Charge applicable to all firm throughput.
SP	System Pressure factor. See Item 3.1 for calculation.
AGT	Advanced Gas Technology factor. See Item 3.2 for calculation.
ISR	Infrastructure, Safety, and Reliability factor. See Item 3.3 for calculation.
ERCF	Environmental Response Cost Factor. See Item 3.4 for calculation.
PAF	Pension Adjustment Factor. See Item 3.5 for calculation.
SQP	Service Quality Performance Factor. See Item 3.6 for calculation.
RDA	Revenue Decoupling Adjustment factor. See Item 3.7 for calculation.
AMAF	Arrearage Management Adjustment Factor. See Item 3.8 for calculation.
LIDRF	Low Income Discount Recovery Factor. See Item 3.9 for calculation.
R	Reconciliation of deferred account balances as of October 31. See Item 4.0 for calculation.
ESM	Earnings Sharing Mechanism Factor. See Item 5.0 for calculation.

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

TCF            Tax Credit Factor. See Item 3.10 for calculation.

The Distribution Adjustment Charge, excluding the RDA, shall be increased by the uncollectible expense percentage approved in the most recent general rate case.

**3.0    DISTRIBUTION ADJUSTMENT CALCULATIONS**

**3.1    System Pressure Factor:**

The System Pressure factor shall be computed in a manner that identifies and includes all fixed and variable gas supply costs required on an annual basis to maintain pressure within the Company's distribution system and shall identify and consider all gas supply costs that are required to maintain pressure for all portions of the Company's distribution system:

$$SP = \frac{GCSP \times SP\%}{Dt_T}$$

**Where:**

SP            System Pressure Amount.

GCSP        Forecasted Gas Costs associated with supply used to maintain system pressures, including both demand and commodity costs.

SP%         Percent of supply used to maintain system pressures, as established in the most recent general rate case or DAC proceeding.

Dt<sub>T</sub>         Forecasted annual firm throughput.

**3.2    AGT Factor:**

The Advanced Gas Technology factor shall be determined annually, or as otherwise approved by the PUC, based on the following:

- (1) pursuant to the Company's AGT Program, an estimate of AGT grants to be disbursed during the upcoming year, the total of which is the eligible AGT Costs to be approved for recovery by the PUC; and
- (2) actual costs prudently incurred by the Company to conduct or in support of studies on the decarbonization of natural gas with the goal of reduced

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

greenhouse gas emissions, the scope, estimated cost, and purpose of which has been reviewed and supported in writing by the by the Division, and formally approved by the PUC after a description of the study (including the scope, estimated cost, and purpose) has been filed by the Company with the PUC.

The Company will recover the total of the costs of AGT grants and prudently incurred costs of the decarbonization studies in excess of available funding from the prior year, if any, through the AGT Factor. The formula will be as follows:

$$AGT = \frac{AGT}{Dt_T}$$

**Where:**

AGT            AGT Factor

AGT            AGT Costs

Dt<sub>T</sub>            Forecasted annual firm throughput in dekatherms

**3.3        Infrastructure, Safety and Reliability Plan:**

**3.3.1    Gas Infrastructure, Safety, and Reliability Plan Filing:**

In compliance with R.I.G.L. Section 39-1-27.7.1, no later than January 1 of each year, the Company shall submit to the PUC a Gas Infrastructure, Safety, and Reliability Plan (Gas ISR Plan) for the upcoming fiscal year (April to March) for review and approval within 90 days. The Gas ISR Plan shall include the upcoming fiscal year's forecasted capital investment on its gas distribution system infrastructure and may include any other costs relating to maintaining safety and reliability that have been mutually agreed upon by the Division and the Company.

**3.3.2    Infrastructure, Safety and Reliability Factor:**

Effective each April 1, the Company shall recover through a change in Distribution Adjustment Charge rates the Cumulative Revenue Requirement on the Adjusted Cumulative Non-growth Capital spending as approved by the PUC in the Company's annual gas infrastructure, safety, and reliability filings less the amount included in rate base for base rate purposes. For purposes of this section, non-growth capital shall exclude general plant (FERC Accts 389 through 399). The Cumulative Revenue

### **DISTRIBUTION ADJUSTMENT CLAUSE**

Requirement shall mean the return and taxes on year-end Adjusted Cumulative Non-growth Capital Spending, at a rate equal to the pre-tax weighted average cost of capital as approved by the PUC in the most recent general rate case, plus the annual depreciation net of depreciation expense attributable to general plant that was approved by the PUC in the Company's most recent general rate case adjusted, if appropriate, by later proceedings related to capital, plus the annual municipal property tax recovery mechanism.

The Adjusted Cumulative Non-growth Capital Spending shall mean the cumulative actual non-growth capital investment recorded since the end of the Company's rate year in its most recent general rate case, reflecting any difference between Actual Non-Growth Investment and Forecasted Non-Growth Investment for any period during which Forecasted Non-Growth Investment has not been reconciled to Actual Non-Growth Investment including through the end of the Company's rate year in its last general rate case. Cumulative Revenue Requirements will reflect Adjusted Cumulative Non-Growth Capital Spending as defined above plus the associated retirements, cost of removal, accumulated depreciation, and accumulated deferred taxes.

All accumulated Gas ISR investments will be eligible for inclusion in rate base recovery through new rates set in the next general rate case.

The Company shall allocate the Cumulative Revenue Requirements to its rate classes based on the rate base allocation approved by the PUC in the Company's most recent general rate case. Any other costs, including Operation and Maintenance expenses mutually agreed upon by the Division and the Company shall be allocated on a per unit basis.

#### **3.3.3 Infrastructure, Safety and Reliability Factor: Reconciliation Mechanism:**

The Company shall include an annual reconciliation mechanism associated with the ISR Factor designed to reconcile the actual Cumulative Revenue Requirements and any associated costs approved for recovery through this mechanism to the actual billed revenue for the prior fiscal year. As part of its annual DAC filing, the Company shall submit by August 1 a reconciliation factor (either positive or negative) related to the ISR Factor recoveries and actual Cumulative Revenue Requirements and any associated costs approved for recovery through this mechanism to take effect annually for the twelve months beginning November 1 each year.

#### **3.4 Environmental Response Cost Factor (ERCF):**

**DISTRIBUTION ADJUSTMENT CLAUSE**

$$ERCF = \frac{\sum ERC_{Y_{T-k}}}{10} - ERC_{EMB} \quad D_{T_T}$$

**Where:**

- ERC            Environmental Response Costs as defined in Section 1, Schedule B Definitions
  
- $\sum ERC_{Y_{T-k}}$     The sum of Environmental Response Costs, incurred in the most recent twelve month period ended March 31.
  
- ERC<sub>EMB</sub>        Environmental Response Costs funding embedded in base rates, \$1,310,000.
  
- D<sub>T<sub>T</sub></sub>            Forecasted annual firm throughput

In order to limit the bill impacts that could potentially result from the incurrence of environmental remediation costs, the ERC factor, calculated as described above, shall be limited to an increase of no more than \$0.10 per dekatherm in any annual DAC filing. If this limitation results in the Company recovering less than the amount that would otherwise be eligible for recovery in a particular year, then beginning on the date that the proposed ERC factor becomes effective, carrying costs shall accrue to the Company on the portion of the environmental remediation costs not included in the ERC factor as a result of this limitation. Such carrying costs shall accrue through the year in which such amount, together with accumulated carrying costs, are recovered from ratepayers. Any amounts so deferred shall be incorporated into the ERC factor in succeeding years consistent with the \$0.10 per dekatherm ERC factor annual increase limitation. Such carrying charges shall accrue at the Interest on Deferred Balance rate specified in Section 1, Schedule B of the Company's Definition section above.

**3.5 Pension Adjustment Factor:**

The Pension Adjustment Factor shall recover or refund the prior fiscal year's reconciliation of the Company's actual Pension and Post-retirement Benefits Other Than Pension (PBOP) expenses to the Company's Pension and PBOP expense allowance included in distribution base rates, including interest at the rate of interest paid on customer deposits. The recoverable actual Pension and PBOP shall reflect expense recorded on the Company's books of account pursuant to the Financial

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

Accounting Standards Board (“FASB”) Accounting Standards Codification Topic 715, Compensation—Retirement Benefits, as amended in March 2017 in a FASB Accounting Standards Update (formerly Statement of Financial Accounting Standards (“SFAS”) 87 and SFAS 106) associated with pension and PBOP. The PAF will be computed on an annual basis for the twelve months ended March 31 and will be based on the difference in the Company’s actual Pension and PBOP expense for the prior twelve month period ended March 31 and the distribution base rate allowance, plus carrying charges at the weighted average cost of capital on the cumulative five quarter average underfunding of the Pension and PBOP Minimum Funding Obligation for the fiscal year ended March 31. The Minimum Funding Obligation will be equal to the amount of Pension and PBOP costs collected from customers during the fiscal year, plus the amounts of Pension and PBOP costs capitalized during the year. The amount collected from customers during the fiscal year would include (1) Pension and PBOP allowance included in base rates, and (2) amounts collected or refunded through the PAF. For the purpose of determining its Minimum Funding Obligation and the carrying costs that apply to that obligation, the Company shall be permitted to combine the funding of pensions and PBOPs, thereby offsetting, any deficiencies in PBOPs funding with any excess pension funding, or conversely offsetting any deficiencies in pension funding with any excess PBOP funding. The Company will be required to accrue and defer carrying charges on only the net unfunded pension/PBOP amount.

**3.6 Service Quality Performance Factor:**

The Service Quality Performance (SQP) Factor will be used for crediting to customers any penalties reflected in the Company’s annual Service Quality Report.

**3.7 Revenue Decoupling Adjustment Factor:**

The Revenue Decoupling Adjustment (RDA) Factor shall be a credit or surcharge determined for all Residential rate classes and Small and Medium C&I rate classes as the sum of the March 31 deferral ending balances for each rate class divided by the forecasted total annual firm throughput for those rate classes. The March deferral ending balance for each rate class shall result from the monthly calculation of the difference between the Target Revenue-per-Customer and the Actual Revenue-Per-Customer for each twelve months ending March 31. The deferral balance will be calculated as follows:

$$RDAF = \frac{\sum_{RC} (AEB_{M-1} + DIFF_M + INT_M)}{D_{TRC}}$$

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

Where:

RDAF            Revenue Decoupling Adjustment Factor

$\sum_{RC}$             The sum of the March 31 deferral ending balances for each of the following rate classes: Residential Non-heat (including Low Income Residential Non-heat), Residential Heat (including Low Income Residential Heat), Small C&I, and Medium C&I.

AEB<sub>M-1</sub>        Account Ending Balance for prior month

DIFF<sub>M</sub>        Current month Difference

$$= (RPC_{TM} - RPC_{AM}) \times CUST_M$$

RPC<sub>TM</sub>        Target Revenue-per-Customer based on class specific revenue per customer targets established in the most recent general rate case. The target for Low-Income classes will reflect non-discounted revenue. Low-income class revenue and customers will be included with non-discounted revenue and customers for the purposes of setting the target.

RPC<sub>AM</sub>        Actual Revenue-per-Customer for current month calculated as actual base revenue divided by number of customers in the current month. Revenue for Low-Income classes will reflect non-discounted revenue.

CUST<sub>M</sub>        Number of customers in current month

INT<sub>M</sub>        Interest on average monthly balance based on the Bank of America Prime minus 200 basis points.

Dt<sub>RC</sub>        Forecasted annual firm throughput for the following rate classes: Residential Non-heat (including Low Income Residential Non-heat), Residential Heat (including Low Income Residential Heat), Small C&I, and Medium C&I.

**3.8    Arrearage Management Adjustment Factor (AMAF):**

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

In compliance with R.I.G.L. §39-2-1(d)(2), the Company shall surcharge customers allowable amounts forgiven through the Arrearage Management Plan (AMP) over the prior calendar year as described in Section 7, Schedule C, Item 9.0 through the AMAF.

$$\text{AMAF} = \frac{\text{AMPC}}{\text{Dt}_T}$$

**Where:**

AMPC Allowable arrearage management plan costs the Company may recover from firm customers in accordance with R.I.G.L. § 39-2-1(d)(2) and described in Section 7, Schedule C, Item 9.0.

Dt<sub>T</sub> Forecasted annual firm throughput

**3.9 Low Income Discount Recovery Factor (LIDRF):**

The Low Income Discount Recovery Factor shall be determined annually based upon the total amount of low income discount applied to eligible customer bills. The low income discount percentages are as follows:

- Residential Assistance Non-Heating, Rate 11: 25% with an additional 5% for a total of 30% for those customers receiving benefits through Medicaid, General Public Assistance, and/or the Rhode Island Works Program (formerly known as the Family Independence Program).
- Residential Assistance Heating, Rate 13: 25% with an additional 5% for a total discount of 30% for those customers receiving benefits through Medicaid, General Public Assistance, and/or the Rhode Island Works Program.

$$\text{LIDRF} = \frac{\text{LIDC}}{\text{Dt}_T}$$

**Where:**

LIDC Annual low income discounts provided to eligible low income customers which the Company may recover from firm customers.



---

**DISTRIBUTION ADJUSTMENT CLAUSE**

For each reconciliation component, a monthly rate based on a monthly rate of the current Bank of America prime interest rate less 200 basis points (2%), multiplied by the arithmetic average of the account's beginning and ending balance shall also apply.

**5.0 EARNINGS SHARING MECHANISM:**

The Earnings Sharing Mechanism Credit ("ESMC") for FY 18 will be included with the September 1 DAC filing based on financial information for the 12-month period ending March 31. All subsequent ESMC will be filed on May 1 and will reflect a 12-month period ending December 31. For purposes of calculating earnings to be shared, the Company will be allowed to include its 50% share of net merger synergies resulting from the National Grid/KeySpan transactions, or \$2,450,000. Calculation of the ESMC is as follows:

$$\text{ESMC} = \frac{\text{ESMF}}{\text{Dt}_T}$$

**Where:**

**ESMF** Earnings Sharing Mechanism Fund is defined as customers' share of earnings subject to sharing and will be based on the return on equity authorized by the PUC in a general rate case or as otherwise authorized by the PUC. For FY 18, the annual earnings over 9.5% return on equity, up to and including 100 basis points, being shared 50% to customers and 50% to the Company. Any earnings more than 100 basis points in excess of 9.5% return on equity shall be shared 75% to customers and 25% to the Company. For all subsequent ESMC, the annual earnings over 9.275% return on equity, and up to and including 100 basis points (i.e., 10.275%), will be shared 50% to customers and 50% to the Company. Any earnings more than 100 basis points in excess of 9.275% return on equity (i.e., exceeding 10.275%) shall be shared 75% to customers and 25% to the Company. The Company's share of any shared earnings will be retained by Company and not reflected in any earnings report.

**Dt<sub>T</sub>** Forecasted annual firm throughput

**THE NARRAGANSETT ELECTRIC COMPANY  
d/b/a NATIONAL GRID  
RIPUC DOCKET NO. 5079  
DISTRIBUTION ADJUSTMENT CHARGE FILING  
TARIFF ADVICE TO AMEND AGT PROGRAM  
SCHEDULE LG-2**

---

Proposed DAC Provision  
Marked to Show Changes

---

## DISTRIBUTION ADJUSTMENT CLAUSE

### **1.0 GENERAL**

#### **1.1 Purpose:**

The purpose of the Distribution Adjustment Clause (“DAC”) is to establish procedures that allow the Company, subject to the jurisdiction of the PUC, to annually adjust its rates for firm sales and transportation in order to recover, credit, or reconcile the following:

- (1) the system pressure costs;
- (2) the difference between the approved AGT factor revenue collections and actual AGT factor revenue collections;
- (3) the costs of the Infrastructure, Safety, and Reliability Plan;
- (4) the amortization of the most recent ten years of Environmental Response costs;
- (5) Pension costs and Post-retirement Benefits Other than Pensions expenses;
- (6) to credit any Service Quality Performance penalties;
- (7) any over or under collections of revenue under the Revenue Decoupling mechanism;
- (8) the previous year DAC items;
- (9) any Earnings Sharing;
- (10) any Residential Assistance costs; and
- (11) the impact of the Tax Cuts and Jobs Act.

Any costs recovered through the application of the Distribution Adjustment Charge shall be identified and explained fully in the annual Distribution Adjustment Charge filing.

#### **1.2 Applicability:**

The Distribution Adjustment Charge will be applied to sales and transportation volumes under each of the Company’s firm rate schedules.

The Company will make annual DAC filings and its annual Reconciliation filings based on actual costs and volumes available at the time of filing as well as forecasts of applicable costs and volumes through October of that year. With the exception of the Infrastructure, Safety and Reliability component described in Item 3.3.2, the Distribution Adjustment Charge shall become effective with consumption as of November 1 each year.

Unless otherwise notified by the PUC, the Company shall submit the Distribution Adjustment Charge filings no later than 90 days before they are scheduled to take

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

effect, provided however that the Revenue Decoupling Adjustment component of the Distribution Adjustment Charge filing will be made July 1 annually. The Annual Reconciliation filing will be made by August 1 of each year.

**2.0 DISTRIBUTION ADJUSTMENT CHARGE:**

The Distribution Adjustment Charge will consist of an annual System Pressure factor, an Advanced Gas Technology factor, an Infrastructure, Safety, and Reliability factor, an Environmental Response Cost factor, a Pension Adjustment Mechanism factor, a Service Quality Performance factor, a Revenue Decoupling Adjustment factor, and a Reconciliation of deferred account balance factor, an Earnings Sharing Mechanism factor, a Low Income Discount Recovery Factor, a Tax Credit Factor and an Arrearage Management Adjustment Factor. The Distribution Adjustment Charge is calculated as follows:

$$DAC = SP + AGT + ISR + ERCF + PAF + SQP + RDA + AMAF + R + ESM + LIDRF + TCF$$

**Where:**

DAC	Distribution Adjustment Charge applicable to all firm throughput.
SP	System Pressure factor. See Item 3.1 for calculation.
AGT	Advanced Gas Technology factor. See Item 3.2 for calculation.
ISR	Infrastructure, Safety, and Reliability factor. See Item 3.3 for calculation.
ERCF	Environmental Response Cost Factor. See Item 3.4 for calculation.
PAF	Pension Adjustment Factor. See Item 3.5 for calculation.
SQP	Service Quality Performance Factor. See Item 3.6 for calculation.
RDA	Revenue Decoupling Adjustment factor. See Item 3.7 for calculation.
AMAF	Arrearage Management Adjustment Factor. See Item 3.8 for calculation.
LIDRF	Low Income Discount Recovery Factor. See Item 3.9 for calculation.
R	Reconciliation of deferred account balances as of October 31. See Item 4.0 for calculation.
ESM	Earnings Sharing Mechanism Factor. See Item 5.0 for calculation.

**DISTRIBUTION ADJUSTMENT CLAUSE**

TCF Tax Credit Factor. See Item 3.10 for calculation.

The Distribution Adjustment Charge, excluding the RDA, shall be increased by the uncollectible expense percentage approved in the most recent general rate case.

**3.0 DISTRIBUTION ADJUSTMENT CALCULATIONS**

**3.1 System Pressure Factor:**

The System Pressure factor shall be computed in a manner that identifies and includes all fixed and variable gas supply costs required on an annual basis to maintain pressure within the Company’s distribution system and shall identify and consider all gas supply costs that are required to maintain pressure for all portions of the Company’s distribution system:

$$SP = \frac{GCSP \times SP\%}{Dt_T}$$

**Where:**

SP System Pressure Amount.

GCSP Forecasted Gas Costs associated with supply used to maintain system pressures, including both demand and commodity costs.

SP% Percent of supply used to maintain system pressures, as established in the most recent general rate case or DAC proceeding.

Dt<sub>T</sub> Forecasted annual firm throughput.

**3.2 AGT Factor:**

The Advanced Gas Technology factor shall be determined -annually, or as otherwise approved by the PUC, based on the following:

- (1) pursuant to the Company’s AGT Program, an estimate of AGT grants to be disbursed during the upcoming year, ~~adjusted by any AGT grants from the prior year in excess of available funding or available funding in excess of AGT grants from the prior year~~, the total of which is the eligible AGT Costs to be approved for recovery by the PUC; and

**DISTRIBUTION ADJUSTMENT CLAUSE**

(2) actual costs prudently incurred by the Company to conduct or in support of studies on the decarbonization of natural gas with the goal of reduced greenhouse gas emissions, the scope, estimated cost, and purpose of which has been reviewed and supported in writing by the by the Division, and formally approved by the PUC after a description of the study (including the scope, estimated cost, and purpose) has been filed by the Company with the PUC.

The Company will recover the total of the costs of AGT grants and prudently incurred costs of the decarbonization studies in excess of available funding from the prior year, if any, through the AGT Factor. The formula will be as follows:

$$AGT = \frac{AGT}{Dt_T}$$

**Where:**

AGT            AGT Factor

AGT            AGT Costs

Dt<sub>T</sub>            Forecasted annual firm throughput in dekatherms

**3.3 Infrastructure, Safety and Reliability Plan:**

**3.3.1 Gas Infrastructure, Safety, and Reliability Plan Filing:**

In compliance with R.I.G.L. Section 39-1-27.7.1, no later than January 1 of each year, the Company shall submit to the PUC a Gas Infrastructure, Safety, and Reliability Plan (Gas ISR Plan) for the upcoming fiscal year (April to March) for review and approval within 90 days. The Gas ISR Plan shall include the upcoming fiscal year's forecasted capital investment on its gas distribution system infrastructure and may include any other costs relating to maintaining safety and reliability that have been mutually agreed upon by the Division and the Company.

**3.3.2 Infrastructure, Safety and Reliability Factor:**

Effective each April 1, the Company shall recover through a change in Distribution Adjustment Charge rates the Cumulative Revenue Requirement on the Adjusted Cumulative Non-growth Capital spending as approved by the PUC in the Company's

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

annual gas infrastructure, safety, and reliability filings less the amount included in rate base for base rate purposes. For purposes of this section, non-growth capital shall exclude general plant (FERC Accts 389 through 399). The Cumulative Revenue Requirement shall mean the return and taxes on year-end Adjusted Cumulative Non-growth Capital Spending, at a rate equal to the pre-tax weighted average cost of capital as approved by the PUC in the most recent general rate case, plus the annual depreciation net of depreciation expense attributable to general plant that was approved by the PUC in the Company's most recent general rate case adjusted, if appropriate, by later proceedings related to capital, plus the annual municipal property tax recovery mechanism.

The Adjusted Cumulative Non-growth Capital Spending shall mean the cumulative actual non-growth capital investment recorded since the end of the Company's rate year in its most recent general rate case, reflecting any difference between Actual Non-Growth Investment and Forecasted Non-Growth Investment for any period during which Forecasted Non-Growth Investment has not been reconciled to Actual Non-Growth Investment including through the end of the Company's rate year in its last general rate case. Cumulative Revenue Requirements will reflect Adjusted Cumulative Non-Growth Capital Spending as defined above plus the associated retirements, cost of removal, accumulated depreciation, and accumulated deferred taxes.

All accumulated Gas ISR investments will be eligible for inclusion in rate base recovery through new rates set in the next general rate case.

The Company shall allocate the Cumulative Revenue Requirements to its rate classes based on the rate base allocation approved by the PUC in the Company's most recent general rate case. Any other costs, including Operation and Maintenance expenses mutually agreed upon by the Division and the Company shall be allocated on a per unit basis.

**3.3.3 Infrastructure, Safety and Reliability Factor: Reconciliation Mechanism:**

The Company shall include an annual reconciliation mechanism associated with the ISR Factor designed to reconcile the actual Cumulative Revenue Requirements and any associated costs approved for recovery through this mechanism to the actual billed revenue for the prior fiscal year. As part of its annual DAC filing, the Company shall submit by August 1 a reconciliation factor (either positive or negative) related to the ISR Factor recoveries and actual Cumulative Revenue Requirements and any associated costs approved for recovery through this mechanism to take effect annually for the twelve months beginning November 1 each year.

**DISTRIBUTION ADJUSTMENT CLAUSE**

**3.4 Environmental Response Cost Factor (ERCF):**

$$\text{ERCF} = \frac{\sum \text{ERC}_{Y_{T_x}}}{10} - \text{ERC}_{\text{EMB}} \div \text{Dt}_T$$

**Where:**

ERC Environmental Response Costs as defined in Section 1, Schedule B Definitions

$\sum \text{ERC}_{Y_{T_x}}$  The sum of Environmental Response Costs, incurred in the most recent twelve month period ended March 31.

$\text{ERC}_{\text{EMB}}$  Environmental Response Costs funding embedded in base rates, \$1,310,000.

$\text{Dt}_T$  Forecasted annual firm throughput

In order to limit the bill impacts that could potentially result from the incurrence of environmental remediation costs, the ERC factor, calculated as described above, shall be limited to an increase of no more than \$0.10 per dekatherm in any annual DAC filing. If this limitation results in the Company recovering less than the amount that would otherwise be eligible for recovery in a particular year, then beginning on the date that the proposed ERC factor becomes effective, carrying costs shall accrue to the Company on the portion of the environmental remediation costs not included in the ERC factor as a result of this limitation. Such carrying costs shall accrue through the year in which such amount, together with accumulated carrying costs, are recovered from ratepayers. Any amounts so deferred shall be incorporated into the ERC factor in succeeding years consistent with the \$0.10 per dekatherm ERC factor annual increase limitation. Such carrying charges shall accrue at the Interest on Deferred Balance rate specified in Section 1, Schedule B of the Company's Definition section above.

**3.5 Pension Adjustment Factor:**

The Pension Adjustment Factor shall recover or refund the prior fiscal year's reconciliation of the Company's actual Pension and Post-retirement Benefits Other Than Pension (PBOP) expenses to the Company's Pension and PBOP expense allowance included in distribution base rates, including interest at the rate of interest

---

**DISTRIBUTION ADJUSTMENT CLAUSE**

paid on customer deposits. The recoverable actual Pension and PBOP shall reflect expense recorded on the Company's books of account pursuant to the Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topic 715, Compensation—Retirement Benefits, as amended in March 2017 in a FASB Accounting Standards Update (formerly Statement of Financial Accounting Standards ("SFAS") 87 and SFAS 106) associated with pension and PBOP. The PAF will be computed on an annual basis for the twelve months ended March 31 and will be based on the difference in the Company's actual Pension and PBOP expense for the prior twelve month period ended March 31 and the distribution base rate allowance, plus carrying charges at the weighted average cost of capital on the cumulative five quarter average underfunding of the Pension and PBOP Minimum Funding Obligation for the fiscal year ended March 31. The Minimum Funding Obligation will be equal to the amount of Pension and PBOP costs collected from customers during the fiscal year, plus the amounts of Pension and PBOP costs capitalized during the year. The amount collected from customers during the fiscal year would include (1) Pension and PBOP allowance included in base rates, and (2) amounts collected or refunded through the PAF. For the purpose of determining its Minimum Funding Obligation and the carrying costs that apply to that obligation, the Company shall be permitted to combine the funding of pensions and PBOPs, thereby offsetting, any deficiencies in PBOPs funding with any excess pension funding, or conversely offsetting any deficiencies in pension funding with any excess PBOP funding. The Company will be required to accrue and defer carrying charges on only the net unfunded pension/PBOP amount.

**3.6 Service Quality Performance Factor:**

The Service Quality Performance (SQP) Factor will be used for crediting to customers any penalties reflected in the Company's annual Service Quality Report.

**3.7 Revenue Decoupling Adjustment Factor:**

The Revenue Decoupling Adjustment (RDA) Factor shall be a credit or surcharge determined for all Residential rate classes and Small and Medium C&I rate classes as the sum of the March 31 deferral ending balances for each rate class divided by the forecasted total annual firm throughput for those rate classes. The March deferral ending balance for each rate class shall result from the monthly calculation of the difference between the Target Revenue-per-Customer and the Actual Revenue-Per-Customer for each twelve months ending March 31. The deferral balance will be calculated as follows:

**DISTRIBUTION ADJUSTMENT CLAUSE**

$$RDAF = \frac{\sum_{RC} (AEB_{M-1} + DIFF_M + INT_M)}{D_{TRC}}$$

Where:

RDAF Revenue Decoupling Adjustment Factor

$\sum_{RC}$  The sum of the March 31 deferral ending balances for each of the following rate classes: Residential Non-heat (including Low Income Residential Non-heat), Residential Heat (including Low Income Residential Heat), Small C&I, and Medium C&I.

$AEB_{M-1}$  Account Ending Balance for prior month

$DIFF_M$  Current month Difference

$$= (RPC_{TM} - RPC_{AM}) \times CUST_M$$

$RPC_{TM}$  Target Revenue-per-Customer based on class specific revenue per customer targets established in the most recent general rate case. The target for Low-Income classes will reflect non-discounted revenue. Low-income class revenue and customers will be included with non-discounted revenue and customers for the purposes of setting the target.

$RPC_{AM}$  Actual Revenue-per-Customer for current month calculated as actual base revenue divided by number of customers in the current month. Revenue for Low-Income classes will reflect non-discounted revenue.

$CUST_M$  Number of customers in current month

$INT_M$  Interest on average monthly balance based on the Bank of America Prime minus 200 basis points.

$D_{TRC}$  Forecasted annual firm throughput for the following rate classes: Residential Non-heat (including Low Income Residential Non-heat), Residential Heat (including Low Income Residential Heat), Small C&I, and Medium C&I.

**DISTRIBUTION ADJUSTMENT CLAUSE**

**3.8 Arrearage Management Adjustment Factor (AMAF):**

In compliance with R.I.G.L. §39-2-1(d)(2), the Company shall surcharge customers allowable amounts forgiven through the Arrearage Management Plan (AMP) over the prior calendar year as described in Section 7, Schedule C, Item 9.0 through the AMAF.

$$\text{AMAF} = \frac{\text{AMPC}}{\text{Dt}_T}$$

**Where:**

AMPC Allowable arrearage management plan costs the Company may recover from firm customers in accordance with R.I.G.L. § 39-2-1(d)(2) and described in Section 7, Schedule C, Item 9.0.

Dt<sub>T</sub> Forecasted annual firm throughput

**3.9 Low Income Discount Recovery Factor (LIDRF):**

The Low Income Discount Recovery Factor shall be determined annually based upon the total amount of low income discount applied to eligible customer bills. The low income discount percentages are as follows:

- Residential Assistance Non-Heating, Rate 11: 25% with an additional 5% for a total of 30% for those customers receiving benefits through Medicaid, General Public Assistance, and/or the Rhode Island Works Program (formerly known as the Family Independence Program).
- Residential Assistance Heating, Rate 13: 25% with an additional 5% for a total discount of 30% for those customers receiving benefits through Medicaid, General Public Assistance, and/or the Rhode Island Works Program.

$$\text{LIDRF} = \frac{\text{LIDC}}{\text{Dt}_T}$$

**Where:**

**DISTRIBUTION ADJUSTMENT CLAUSE**

LIDC	Annual low income discounts provided to eligible low income customers which the Company may recover from firm customers.
D <sub>T</sub>	Forecasted annual firm throughput excluding Rate 11 and Rate 13 forecasted annual throughput.

**3.10 Tax Credit Factor (TCF):**

The Tax Credit Factor shall credit customers (1) pursuant to the settlement agreement in Docket 4808, a one-time tax credit of \$3,064,228 for the period January 1, 2018 through August 31, 2018 associated with the reduced federal corporate income tax rate as a result of the Tax Cuts and Jobs Act; and (2) pursuant to Article II, Section C.22.a of the amended settlement agreement in Docket 4770, a one-time tax credit associated with the impact of the true-up of the excess Accumulated Deferred Income Tax (ADIT) for the period September 1, 2018 through August 31, 2019. The Company will determine the amount to be credited to customers by comparing the actual distribution revenue billed to firm customers during the period September 1, 2018 through August 31, 2019 and an estimate of the distribution revenue that would have been billed to firm customers if the actual impact of excess ADIT had been reflected in base distribution rates effective September 1, 2018. These one-time tax credit amounts will be credited to all firm customers during the period November 1, 2019 through October 31, 2020.

$$TCF = \frac{TR}{D_{T}}$$

**Where:**

TR	Sum of the one-time tax credits of \$3,064,228 and the impact of the true-up of excess ADIT.
D <sub>T</sub>	Forecasted annual firm throughput.

**4.0 DEFERRED DISTRIBUTION ADJUSTMENT COST ACCOUNT:**

The Distribution Adjustment Cost Account shall include annual reconciliation for the twelve month period for the revenues and costs for the System Pressure factor, Advanced Gas Technology factor, ISR factor, Environmental Response Costs factor, Pension Adjustment factor, SQP factor, RDA factor, ESM factor, AMAF, LIDRF, TCF, and a Previous Reconciliation factor, including a true-up for any prior year's forecasted revenues and costs.

**DISTRIBUTION ADJUSTMENT CLAUSE**

Base rate related items (Advanced Gas Technology factor, Pension Adjustment factor and Environmental Response Cost factor) will be reconciled only for those non-Revenue Decoupling rate classes (Large and Extra Large high load and low load factor rate classes). For each reconciliation component, a monthly rate based on a monthly rate of the current Bank of America prime interest rate less 200 basis points (2%), multiplied by the arithmetic average of the account's beginning and ending balance shall also apply.

**5.0 EARNINGS SHARING MECHANISM:**

The Earnings Sharing Mechanism Credit (“ESMC”) for FY 18 will be included with the September 1 DAC filing based on financial information for the 12-month period ending March 31. All subsequent ESMC will be filed on May 1 and will reflect a 12-month period ending December 31. For purposes of calculating earnings to be shared, the Company will be allowed to include its 50% share of net merger synergies resulting from the National Grid/KeySpan transactions, or \$2,450,000. Calculation of the ESMC is as follows:

$$\text{ESMC} = \frac{\text{ESMF}}{\text{Dt}_T}$$

**Where:**

**ESMF** Earnings Sharing Mechanism Fund is defined as customers’ share of earnings subject to sharing and will be based on the return on equity authorized by the PUC in a general rate case or as otherwise authorized by the PUC. For FY 18, the annual earnings over 9.5% return on equity, up to and including 100 basis points, being shared 50% to customers and 50% to the Company. Any earnings more than 100 basis points in excess of 9.5% return on equity shall be shared 75% to customers and 25% to the Company. For all subsequent ESMC, the annual earnings over 9.275% return on equity, and up to and including 100 basis points (i.e., 10.275%), will be shared 50% to customers and 50% to the Company. Any earnings more than 100 basis points in excess of 9.275% return on equity (i.e., exceeding 10.275%) shall be shared 75% to customers and 25% to the Company. The Company’s share of any shared earnings will be retained by Company and not reflected in any earnings report.

**Dt<sub>T</sub>** Forecasted annual firm throughput